



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1998

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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IOWA, Northeast

Clayton County Mc Gregor	18	0952CST			0	0			Hail (0.88)
			Nickel size hail reported by off-duty sheriff deputy.						
Chickasaw County Nashua	18	1417CST			0	1	500K	40K	Thunderstorm Wind (G100)
Chickasaw County 2 N Nashua	18	1420CST			0	0	150K	35K	Thunderstorm Wind (G96)
Chickasaw County North Washington	18	1433CST			0	0	60K	45K	Thunderstorm Wind (G95)
Chickasaw County Alta Vista	18	1445CST			0	0	8.9K		Thunderstorm Wind
Fayette County Oelwein	18	1505CST 1511CST			0	0	55K		Thunderstorm Wind (G55)
Fayette County Oelwein Muni Arpt	18	1505CST			0	0	30K		Thunderstorm Wind (G50)
Winneshiek County 1.5 NE Calmar	18	1515CST			0	0	45K	30K	Thunderstorm Wind (G70)
Winneshiek County Decorah	18	1517CST			0	0	20K	12K	Thunderstorm Wind
Howard County 3 N Cresco	18	1525CST			0	0	10K		Thunderstorm Wind (G53)
Clayton County Elkader	18	1530CST			0	0	35K	25K	Thunderstorm Wind (G55)
Winneshiek County Hesper	18	1545CST			0	0	35K	20K	Thunderstorm Wind
Allamakee County Waukon	18	1607CST			0	0	15K		Thunderstorm Wind (G52)
A line of severe thunderstorms knocked down numerous trees and power lines across northeast Iowa. The town of Nashua was hardest hit as straight-line winds, estimated as high as 120 mph, damaged over 70 homes and blew down approximately 1000 trees. Five businesses in Nashua sustained damage and a 100 foot concrete silo was toppled. A man was also injured when his mobile home was destroyed.									
Farm outbuildings were damaged and trees blown down in other areas of Chickasaw County and around Decorah in Winneshiek County.									
Chickasaw County Alta Vista to Ionia	18	1600CST 1730CST			0	0	12K	20K	Flash Flood
Howard County Lime Spgs to Elma	18	1600CST 1730CST			0	0	15K	25K	Flash Flood
Flash flooding was observed in area streams after 2 to 3 inches of rain fell in an hour.									
Howard County 3 W Chester	20	1432CST			0	0	25K	20K	Thunderstorm Wind (G61)
Howard County 2 E Cresco	20	1455CST			0	0	85K	35K	Thunderstorm Wind (G61)
Howard County 8 SW Cresco	20	1500CST			0	0			Thunderstorm Wind (G61)



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					Killed	Injured	Property	Crops	
<u>IOWA, Northeast</u>									
Winneshiek County 5 N Decorah	20	1503CST			0	0	25K	30K	Thunderstorm Wind (G61)
Chickasaw County 2 W Nashua	20	1510CST			0	0		15K	Thunderstorm Wind (G52)
Winneshiek County Burr Oak to Hesper	20	1540CST			0	0	15K	20K	Thunderstorm Wind (G61)
Chickasaw County New Hampton	20	1545CST			0	0	10K		Thunderstorm Wind (G61)
Clayton County Gunder	20	1600CST			0	0			Thunderstorm Wind (G52)
Fayette County West Union	20	1605CST			0	0	14K	18K	Thunderstorm Wind (G61)
Allamakee County Postville	20	1615CST			0	0			Hail (0.75)
Allamakee County Waukon	20	1617CST			0	0		15K	Hail (0.75)
Allamakee County Lansing	20	1626CST			0	0	20K		Hail (1.50)
Hail the size of dimes to as large as walnuts was reported by law enforcement and storm spotters Winds up to 70 mph damaged barns, silos, and knocked down numerous large trees.									
Mitchell County Osage	23	2319CST			0	0	7K		Thunderstorm Wind (G52)
Howard County Cresco	23	2330CST			0	0	0.20K		Thunderstorm Wind
Winneshiek County Jackson Jet	24	0009CST			0	0	12K		Thunderstorm Wind (G53)
Winds gusted to 61 mph, blowing down large trees and branches.									
Chickasaw County Fredricksburg to New Hampton	24	0000CST 0130CST			0	0	20K		Urban/Sml Stream Fld
A city park was underwater and a few roads were flooded after 1.5 inches of rain fell in a couple hours									
Clayton County Monona	27	0211CST			0	0			Thunderstorm Wind (G52)
Mitchell County St Ansgar	27	1835CST			0	0	2K	8K	Thunderstorm Wind (G52)
Howard County Cresco	27	1905CST			0	0	3K	0.60K	Thunderstorm Wind
Howard County 2 W Cresco	27	1908CST	0.3	20	0	0		1.5K	Tornado (F0)
Mitchell County Mc Intire	27	1915CST			0	0	15K	0.40K	Thunderstorm Wind
Floyd County 1 W Floyd	27	1916CST			0	0	2K	2K	Thunderstorm Wind (G61)
Floyd County Powersville	27	1927CST			0	0	0.30K	0.20K	Thunderstorm Wind



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<u>IOWA, Northeast</u>									
Winneshiek County Burr Oak	27	1930CST			0	0	25K	2.9K	Thunderstorm Wind
Allamakee County Dorchester	27	1934CST			0	0	4K	1K	Thunderstorm Wind (G61)
Howard County 6 N Riceville	27	1939CST			0	0		1K	Thunderstorm Wind
Allamakee County New Albin	27	1950CST			0	0	130K	6K	Thunderstorm Wind (G61)
Winneshiek County Decorah	27	1955CST			0	0	17K	1.6K	Thunderstorm Wind
Winneshiek County Decorah	27	2000CST 2103CST			0	0	2K	2K	Urban/Sml Stream Fld
Chickasaw County New Hampton	27	2015CST 2103CST			0	0	2K	1.3K	Urban/Sml Stream Fld
Allamakee County Harpers Ferry	27	2030CST			0	0			Thunderstorm Wind (G52)
Allamakee County Waukon	27	2133CST 2333CST			0	0	20K		Flash Flood
Chickasaw County New Hampton	27	2133CST 2333CST			0	0	25K		Flash Flood
Floyd County Charles City	27	2133CST 2333CST			0	0	2K		Flash Flood
Winneshiek County Decorah	27	2133CST 2333CST			0	0	5K		Flash Flood
Howard County Cresco	27	2146CST 2349CST			0	0	10K		Flash Flood
Winneshiek County Ossian	27	2200CST			0	0			Hail (0.75)
Fayette County 4 NE West Union	27	2217CST			0	0			Hail (0.75)

A line of thunderstorms swept across northeast Iowa producing widespread wind damage and flash flooding. The strongest winds were near the Iowa-Minnesota border with hundreds of trees down from Mitchell County east into the Decorah area. Further south damage was more sporadic along with occasional power outages.

A brief tornado touched down just west of Cresco as witnessed by trained amateur radio storm spotters. The touchdown was brief and only damaged a small area of crops.

Combined with other storms from earlier in the month, 7 northeast Iowa counties were declared Federal Disaster areas, including Allamakee, Clayton, Chickasaw, Fayette, Floyd, Howard, and Winneshiek. Chickasaw County had the highest estimated damage amounts approaching \$500,000. Most counties had damage estimates from \$100,000 to \$200,000.



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					Killed	Injured	Property	Crops	
<u>IOWA, Northeast</u>									
Allamakee County Countywide	28	0130CST 1030CST			0	0		40K	Flood
Chickasaw County Countywide	28	0130CST 1030CST			0	0		35K	Flood
Floyd County Countywide	28	0130CST 1030CST			0	0		50K	Flood
Howard County Countywide	28	0130CST 1030CST			0	0	20K	30K	Flood
Winneshiek County Countywide	28	0130CST 1030CST			0	0	15K	25K	Flood

Many smaller and medium size rivers were bankful or flooding after torrential rains fell for much of the evening. Flooding mainly impacted low agricultural land although some county roads were closed.

MINNESOTA, Southeast

Houston County Houston	16	1342CST			0	0			Hail (0.75)
		Dime size hail was reported.							
Olmsted County Byron	18	1200CST			0	0	2K		Thunderstorm Wind (G58)
Olmsted County Byron	18	1205CST			0	0	2K		Thunderstorm Wind (G61)
Olmsted County Salem Corners	18	1207CST			0	0	0.50K		Thunderstorm Wind
Fillmore County Mabel	18	1545CST			0	0	17K		Thunderstorm Wind (G54)
Houston County 1 S Houston	18	1600CST			0	0	12K		Thunderstorm Wind (G53)
Houston County Caledonia	18	1607CST			0	0	4K		Thunderstorm Wind (G52)
Houston County 3 E Caledonia	18	1610CST			0	0	35K	28K	Thunderstorm Wind (G52)
Storm spotters reported winds gusts as high as 70 mph at Byron, blowing shingles off a house and knocking down several large trees and branches. Later that afternoon, a few farm buildings were damaged and several large trees and limbs were knocked down in communities closer to the Iowa border.									
Mower County 5 W Waltham	20	1205CST			0	0	20K	40K	Hail (0.75)
Mower County Austin	20	1225CST			0	0	45K	35K	Hail (1.50)
Mower County Austin	20	1236CST			0	0	35K	50K	Hail (1.50)
Mower County 3 E Waltham	20	1239CST			0	0		25K	Hail (0.75)



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					Killed	Injured	Property	Crops	
<u>MINNESOTA, Southeast</u>									
Mower County 3 E Sargeant	20	1245CST			0	0			Hail (0.75)
Mower County Waltham	20	1247CST			0	0	35K		Hail (1.25)
Mower County 2 E Grand Meadow	20	1318CST			0	0			Funnel Cloud
Fillmore County 1 NW Ostrander	20	1337CST			0	0		25K	Hail (0.75)
Fillmore County Ostrander	20	1351CST			0	0	13K		Thunderstorm Wind (G61)
Fillmore County Ostrander	20	1400CST			0	0	5K	20K	Thunderstorm Wind (G56)
Fillmore County Spring Vly	20	1410CST			0	0	18K	40K	Hail (1.25)
Fillmore County Ostrander	20	1415CST			0	0	25K	30K	Hail (1.75)
Fillmore County 5 S Spring Vly	20	1415CST			0	0		45K	Hail (1.75)
Fillmore County Harmony	20	1420CST			0	0	50K		Thunderstorm Wind (G61)
Fillmore County Canton	20	1450CST			0	0	45K	25K	Thunderstorm Wind
Fillmore County Mabel	20	1505CST			0	0	50K	22K	Thunderstorm Wind
Houston County Spring Grove	20	1533CST			0	0	12K		Thunderstorm Wind (G52)
Houston County Spring Grove	20	1538CST			0	0		25K	Hail (0.75)
Houston County 4 S Caledonia	20	1553CST			0	0	10K	20K	Hail (1.25)

A cluster of thunderstorms produced large hail and wind gusts up to 70 mph across southeast Minnesota with the most concentrated area of damage from Austin east through Fillmore County and into extreme southwest Houston County.

The combination of heavy rain, small stream flooding, and large hail damaged many crops from Austin east-southeast through Ostrander and along Highway 44. A school was heavily damaged in Canton and several business just north of Highway 44 in Mabel had roofs torn off. Farm equipment was thrown across Highway 43 just north of Mabel with numerous trees down. In Spring Grove, a cattle barn had the roof blown off and numerous trees in a nearby park were blown down demolishing a shelter. Nearly every camper at a Recreational Vehicle sales lot in Spring Grove was demolished as well.

Mower County Grand Meadow	20	1341CST 1458CST			0	0	0.40K	1.3K	Flash Flood
Fillmore County Harmony to Mabel	20	1530CST 2000CST			0	0	25K	35K	Flash Flood

Flash flooding caused road wash outs as torrential rains hit parts of southeast Minnesota. A nursing home in Mabel (Fillmore County) was evacuated due to rising water.



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<u>MINNESOTA, Southeast</u>									
Olmsted County Byron	24	2021CST			0	0			Hail (0.75)
Olmsted County 2 S Byron	24	2033CST 2036CST	0.2	50	0	0		25K	Tornado (F0)
Olmsted County 4 NW Rochester	24	2050CST			0	0	25K		Hail (1.75)
Wabasha County 5 N Elgin	24	2115CST			0	0			Hail (0.75)
Wabasha County Plainview	24	2140CST			0	0	10K		Hail (0.75)
Wabasha County Kellogg	24	2156CST			0	0			Hail (0.75)
Hail up to golf ball size was reported by storm spotters and law enforcement officials A brief tornado touched down in a corn field near Byron with little damage									
Olmsted County Oronoco	26	2149CST			0	0	20K	10K	Thunderstorm Wind (G70)
Wabasha County Zumbro Falls	26	2153CST			0	0	55K		Thunderstorm Wind (G60)
Olmsted County 1 W Oronoco	26	2155CST			0	0	10K	5K	Thunderstorm Wind (G61)
Winona County Goodview	26	2205CST			0	0	22K		Hail (0.75)
Winona County Winona	26	2205CST			0	0	30K		Hail (0.75)
Olmsted County Dover	26	2233CST			0	0	10K		Thunderstorm Wind (G61)
Winona County Minneiska	26	2238CST			0	0	12K		Thunderstorm Wind (G52)
Winona County Minneiska	26	2240CST			0	0	15K		Thunderstorm Wind (G52)
Wabasha County Zumbro Falls	26	2244CST			0	0	40K	60K	Thunderstorm Wind (G61)
Wabasha County Wabasha	26	2245CST			0	0	1.5K		Thunderstorm Wind (G61)
Olmsted County 1 NW Oronoco	26	2312CST			0	0	15K	5K	Hail (0.88)
Wabasha County Lake City	26	2316CST			0	0	35K		Thunderstorm Wind (G61)
Olmsted County 1 E Oronoco	26	2352CST			0	0		2K	Hail (0.88)
Olmsted County 3 E Oronoco	27	0025CST			0	0			Thunderstorm Wind (G53)
Winona County 1 N Nodine	27	0106CST			0	0		15K	Hail (0.75)

A cluster of thunderstorms brought large hail and damaging wind gusts to parts of southeast Minnesota. Numerous large trees were blown down along with minor roof damage to area homes. A marina in Lake City also sustained some damage to piers and boats



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MINNESOTA, Southeast

Wabasha County

Zumbro Falls	26 27	2330CST 0700CST			0	0	55K	40K	Flash Flood
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Winona County

Stockton	26 27	2330CST 0700CST			0	0	15K	1.7K	Flash Flood
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Olmsted County

Rochester	27	0045CST 0245CST			0	0	15K		Flash Flood
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Flash flooding was observed on numerous small creeks and streams across both Winona and Wabasha Counties. Crops sustained some damage and many county roads had wash outs or were closed. Flash flooding was also observed in the Rochester area with some basements flooded.

Dodge County

4 W Hayfield	27	1748CST			0	0		1K	Hail (1.00)
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Mower County

Austin	27	1756CST			0	0	1.9M	41.5K	Thunderstorm Wind (G61)
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Dodge County

Claremont	27	1759CST			0	0	100K	120K	Thunderstorm Wind (G52)
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Dodge County

West Concord	27	1800CST			0	0	110K	80K	Thunderstorm Wind (G52)
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Mower County

Austin	27	1800CST			0	0	3.2M	250K	Thunderstorm Wind (G61)
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Dodge County

3 W Hayfield	27	1810CST			0	0	22K	80K	Thunderstorm Wind (G52)
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Mower County

Austin Arpt	27	1814CST			0	0	1.5M	190K	Thunderstorm Wind (G81)
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Dodge County

5 W Hayfield	27	1815CST 1900CST			0	0	120K	60K	Flash Flood
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Mower County

Sargeant	27	1817CST			0	0	50K	80K	Thunderstorm Wind (G70)
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Mower County

Racine	27	1825CST			0	0	35K	60K	Thunderstorm Wind
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Olmsted County

Stewartville	27	1827CST			0	0	10K	5K	Thunderstorm Wind (G56)
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Olmsted County

Stewartville	27	1829CST			0	0	3K	2K	Thunderstorm Wind (G70)
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Olmsted County

Oronoco	27	1830CST			0	0	24K	0.90K	Thunderstorm Wind
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Olmsted County

Rochester	27	1832CST			0	0	320K	150K	Thunderstorm Wind (G70)
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Wabasha County

Mazeppa	27	1835CST			0	0	24K	7K	Thunderstorm Wind (G61)
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Fillmore County

Spring Vly	27	1840CST			0	0	0.20K	30K	Hail (1.75)
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Wabasha County

Zumbro Falls	27	1840CST			0	0	560K	45K	Thunderstorm Wind (G61)
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Olmsted County

1 SW Stewartville	27	1841CST			0	0	4K	18K	Thunderstorm Wind (G61)
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<u>MINNESOTA, Southeast</u>									
Olmsted County Byron	27	1845CST 1945CST			0	0			Urban/Sml Stream Fld
Fillmore County Ostrander	27	1850CST			0	0	18K	3K	Thunderstorm Wind (G70)
Fillmore County Spring Vly	27	1850CST			0	0	18K	10K	Thunderstorm Wind (G70)
Wabasha County Plainview	27	1851CST			0	0	85K	40K	Thunderstorm Wind (G61)
Fillmore County Harmony	27	1855CST			0	0	20K	20K	Thunderstorm Wind (G61)
Olmsted County Dover	27	1856CST			0	0	35K	45K	Thunderstorm Wind (G52)
Fillmore County Harmony	27	1900CST 2100CST			0	0	1.6K	2.8K	Urban/Sml Stream Fld
Olmsted County 2 E Dover	27	1900CST			0	0	4K	20K	Thunderstorm Wind (G70)
Winona County Utica	27	1910CST			0	0	15K	25K	Thunderstorm Wind (G56)
Fillmore County Chatfield	27	1913CST			0	0	8K	3K	Thunderstorm Wind (G70)
Winona County Lewiston	27	1914CST			0	0	250K	100K	Thunderstorm Wind
Winona County Stockton	27	1914CST			0	0	2K	14K	Thunderstorm Wind (G61)
Winona County Winona Muni Arpt	27	1918CST			0	0	300K	15K	Thunderstorm Wind (G78)
Fillmore County Preston	27	1922CST			0	0	18K	5K	Thunderstorm Wind (G52)
Houston County Caledonia	27	1930CST			0	0	40K	5K	Thunderstorm Wind
Winona County Winona	27	1930CST			0	0	400K	50K	Thunderstorm Wind (G65)
Houston County Hokah	27	1939CST			0	0	30K	20K	Thunderstorm Wind
Houston County La Crescent	27	1939CST			0	0	10K	0.90K	Thunderstorm Wind
Houston County Brownsville	27	1946CST			0	0	46K	7K	Thunderstorm Wind (G82)

A line of intense thunderstorms swept through southeast Minnesota with two distinct downburst damage paths.

The northern track hit southern Wabasha County and then passed through central Winona County hitting the city of Winona directly. Thousands of trees were knocked down from wind gusts of 70 to 90 mph, along with power lines down and sporadic property damage.

The southern track was more intense and passed from Austin through Fillmore and Houston Counties before crossing into Wisconsin. The City of Austin has widespread property and tree damage with power loss to almost the entire city for over 24 hours. Many streets in town were impassable due to the downed trees and power lines. A furniture store downtown sustained heavy damage when a brick wall collapsed. The courthouse also was damaged. The Cedar River also rose quickly and caused minor damage in Austin.



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MINNESOTA, Southeast

There were reports of large hail and hundreds of trees down as the line of storms moved east from Austin and hit Spring Valley and Harmony. Many buildings were also damaged. Near the Mississippi River, the community of Brownsville nearly lost every tree in town from estimated wind gusts over 100 mph.

Six southeast Minnesota counties were declared Federal Disaster areas with estimated damage costs exceeding 8 Million dollars in Mower County (Austin) alone. Other damage estimates included \$1.2 Million in Winona County, \$550,000 in Olmsted County, \$250,000 in Wabasha County, \$126, 000 in Houston County, and \$100,000 in Fillmore County.

WISCONSIN, Southwest

Grant County Lancaster	18	1032CST			0	0	0.20K		Thunderstorm Wind
The county Emergency Manager reported large trees down.									
Crawford County Prairie Du Chien	18	1545CST			0	1	18K		Thunderstorm Wind (G56)
A woman suffered a broken leg when a tree fell on the lodge she was staying in.									
Grant County Bagley	18	1545CST			0	0	95K		Thunderstorm Wind (G56)
Jellystone Campground was hit with many campers damaged.									
Vernon County 1.5 NE Retreat to 5 N Westby	18	1607CST 1630CST	1.5	120	0	0	100K	50K	Tornado (F1)
Grant County Lancaster	18	1610CST 1612CST	0.1	35	0	1	200K	20K	Tornado (F0)
La Crosse County 5 S La Crosse	18	1618CST			0	0	15K		Thunderstorm Wind (G52)
Crawford County Wauzeka	18	1620CST			0	0	40K		Thunderstorm Wind (G58)
Grant County Lancaster	18	1620CST			0	0	150K	30K	Thunderstorm Wind (G58)
La Crosse County 3 E La Crosse	18	1620CST			0	0			Thunderstorm Wind (G52)
La Crosse County New Amsterdam	18	1623CST			0	0	3K		Thunderstorm Wind
La Crosse County West Salem	18	1623CST			0	13	20K		Thunderstorm Wind (G54)
Circus tent collapsed at fairgrounds. 500 people were in tent. 13 injured.									
Grant County Montfort	18	1625CST			0	0	40K		Thunderstorm Wind (G57)
La Crosse County St Joseph	18	1625CST			0	0			Thunderstorm Wind (G56)
Vernon County Westby	18	1625CST			0	0	60K		Thunderstorm Wind (G60)
Roof blown off bowling alley									
Grant County Blue River	18	1630CST			0	0	18K	30K	Thunderstorm Wind (G53)
La Crosse County Middle Ridge	18	1630CST			0	0	0.30K		Thunderstorm Wind (G52)
Large trees blown down.									



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June 1998

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured	Estimated Damage Property Crops	Character of Storm
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WISCONSIN, Southwest

Trempealeau County 1 SW Trempealeau	18	1635CST			0 0	3.5K	Thunderstorm Wind (G52) A boat capsized on the Mississippi River from strong wind gusts.
Monroe County Cashton	18	1645CST			0 0	1M	Thunderstorm Wind (G60) Elementary school roof blown off
Richland County Viola	18	1647CST			0 0	0.70K	Thunderstorm Wind Large trees and power lines blown down
Monroe County Tomah	18	1655CST			0 0	10K	Thunderstorm Wind (G53)
Richland County Richland Center	18	1657CST			0 0	30K	Thunderstorm Wind (G55)
Monroe County 5 S Tomah	18	1658CST			0 0		Thunderstorm Wind (G50)
Juneau County 3 NW Camp Douglas	18	1700CST			0 0	20K	Thunderstorm Wind (G57)
La Crosse County 10 N La Crosse	18	1700CST			0 0	6K	Thunderstorm Wind (G53)
Monroe County Oakdale	18	1700CST			0 0		Thunderstorm Wind (G52)
Monroe County 3 N Oakdale	18	1700CST			0 0	1.2K	Thunderstorm Wind
Richland County Bloom City	18	1705CST			0 0	15K 10K	Thunderstorm Wind (G57)
Juneau County Mauston	18	1710CST 1712CST			0 0	45K	Thunderstorm Wind (G61)
Adams County Dellwood	18	1725CST			0 0		Thunderstorm Wind (G52)
Adams County 1 E Adams	18	1735CST			0 0	12K	Thunderstorm Wind (G52) A line of severe thunderstorms accompanied by straight-line winds up to 70 mph caused extensive damage across southwest Wisconsin. A short-lived tornado hit a dairy barn near Retreat (Vernon Co.), killing five cows and injuring one person. The F1 tornado skipped along the ground and stacked trees together after its passage. A second smaller tornado hit Lancaster (Grant Co.) causing damage to several homes and knocking down hundreds of trees in the city. Other notable damage consisted of a roof blown off the elementary school in Cashton (Monroe Co.) and a bowling alley in Westby (Vernon Co.). In West Salem (La Crosse Co.), a large circus tent, with 500 people inside, collapsed during one of the performances. Thirteen people were injured. There were numerous other reports of trees or power lines down.
Vernon County Genoa	20	1621CST			0 0		Hail (0.75)



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WISCONSIN, Southwest

Vernon County									
Genoa	20	1640CST			0	0	25K		Hail (1.50)
Crawford County									
Gays Mills	20	1654CST			0	0		20K	Hail (0.75)
Vernon County									
Retreat	20	1655CST			0	0	15K		Thunderstorm Wind (G52)
Vernon County									
Viroqua	20	1655CST			0	0	40K	30K	Hail (1.75)
Vernon County									
Viroqua	20	1655CST			0	0			Thunderstorm Wind (G52)
Crawford County									
Mt Sterling	20	1659CST			0	0			Hail (0.75)
Vernon County									
Westby	20	1702CST			0	0			Funnel Cloud
Grant County									
Boscobel	20	1713CST			0	0	35K	45K	Hail (1.75)
Grant County									
Blue River	20	1730CST			0	0			Hail (0.75)
Richland County									
Port Andrew	20	1734CST			0	0		25K	Hail (0.75)
Grant County									
Blue River	20	1737CST			0	0	15K	35K	Hail (1.25)
Richland County									
Cazenovia	20	1816CST			0	0			Hail (0.75)

A clusters of storms hit southwest Wisconsin with damaging wind gusts and large hail. Numerous large trees were blown down and there was minor damage sustained to farm buildings. Hail up to golf ball size was also reported.

Vernon County									
Genoa	24	1940CST			0	0	18K		Hail (1.50)
Vernon County									
Westby	24	2005CST			0	0	30K	30K	Hail (1.75)
Vernon County									
Westby	24	2007CST			0	0	15K	20K	Hail (1.50)
Monroe County									
10 N Sparta	24	2016CST			0	0			Hail (0.75)
Jackson County									
2 S Black River Falls	24	2048CST			0	0			Hail (0.75)
Buffalo County									
Cochrane	24	2140CST			0	0	10K		Hail (0.75)
La Crosse County									
3 E Holmen	24	2143CST			0	0			Hail (0.75)
Buffalo County									
3 S Alma	24	2200CST			0	0			Hail (0.75)
Trempealeau County									
4 NE Arcadia	24	2206CST			0	0		15K	Hail (1.00)
Monroe County									
8 N Tomah	24	2230CST			0	0	20K	25K	Hail (1.00)



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<u>WISCONSIN, Southwest</u>									
Monroe County									
1 W Warrens	24	2230CST			0	0	15K	30K	Hail (0.75)
Spotters and law enforcement officials reported hail ranging in size from dimes to golf balls.									
Adams County									
New Rome	25	0035CST			0	0	8K		Thunderstorm Wind (G54)
Buffalo County									
Mondovi	25	0120CST			0	0	5K		Thunderstorm Wind (G53)
Trempealeau County									
Ettrick	25	1243CST 1248CST			0	0			Hail (0.75)
Crawford County									
4 SW Wauzeka	25	1448CST			0	0		25K	Hail (1.00)
Crawford County									
Bridgeport	25	1455CST			0	0	8K		Hail (0.75)
Grant County									
Woodman	25	1502CST			0	0		20K	Hail (0.75)
Grant County									
Castle Rock	25	1537CST			0	0		40K	Hail (1.00)
Grant County									
Muscoda	25	1608CST			0	0	50K		Hail (1.75)
Trempealeau County									
Arcadia	26	1950CST			0	0			Hail (0.75)
Buffalo County									
Nelson	26	2205CST			0	0	30K		Thunderstorm Wind (G61)
Jackson County									
Alma Center	26	2227CST			0	0			Thunderstorm Wind (G52)
Buffalo County									
Mondovi	26	2232CST			0	0	0.80K		Thunderstorm Wind
Trempealeau County									
Eleva	26	2238CST			0	0			Thunderstorm Wind (G52)
Buffalo County									
Mondovi	26	2252CST			0	0	55K	70K	Thunderstorm Wind (G60)
La Crosse County									
Midway	26	2315CST			0	0			Thunderstorm Wind (G52)
La Crosse County									
Holmen	26	2318CST			0	0	30K		Thunderstorm Wind (G61)
Jackson County									
Melrose to Black River Falls	26	2325CST			0	0	40K	40K	Thunderstorm Wind (G61)
La Crosse County									
New Amsterdam	26	2327CST			0	0			Thunderstorm Wind (G52)
La Crosse County									
St Joseph	26	2345CST			0	0	35K	25K	Thunderstorm Wind (G61)
Juneau County									
1 N Finley	27	0020CST			0	0			Thunderstorm Wind (G52)
Monroe County									
Sparta	27	0030CST			0	0	25K		Thunderstorm Wind (G52)



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June 1998

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WISCONSIN, Southwest

Vernon County									
Viroqua	27	0032CST			0	0			Thunderstorm Wind (G52)
Adams County									
Adams	27	0047CST			0	0	0.30K		Thunderstorm Wind
Monroe County									
Tomah	27	0057CST			0	0	25K		Thunderstorm Wind (G55)
Monroe County									
Sparta	27	0058CST			0	0	35K		Thunderstorm Wind (G55)
Crawford County									
Mt Sterling	27	0122CST			0	0	55K	70K	Thunderstorm Wind (G60)

Two clusters of thunderstorms brought large hail, damaging wind, and excessive rain to the region. Wind gusts to 70 mph knocked down trees and power lines but there was no widespread property damage reported.

Trempealeau County									
Whitehall to	26	2030CST			0	0	60K	50K	Flash Flood
Arcadia	27	0600CST							
Jackson County									
Hatfield to	26	2215CST			0	0	70K	70K	Flash Flood
Black River Falls	27	0600CST							
Buffalo County									
Alma	26	2242CST			0	0	13K		Flash Flood
	27	0242CST							
Clark County									
Chili	26	2243CST			0	0	50K	40K	Flash Flood
	27	0600CST							
La Crosse County									
La Crosse	27	0015CST			0	0	20K		Flash Flood
		0230CST							
Monroe County									
1 NW Tomah	27	0057CST			0	0	20K		Flash Flood
		0200CST							
Vernon County									
Viroqua	27	0130CST			0	0	12K		Flash Flood
		0330CST							

Excessive thunderstorm rains produced flash flooding and relatively rapid rises on the larger tributaries in west and southwest Wisconsin. There was at least two feet of water over some roadways across southern Clark County and northern Jackson County, along with flash flooding in some of the steeper terrain of Trempealeau County. A car was washed off the road northwest of Tomah (Monroe Co.).

Buffalo County									
Buffalo City	27	1855CST			0	0	3K	1.5K	Thunderstorm Wind
Buffalo County									
Cochrane	27	1855CST			0	0	2K	1.3K	Thunderstorm Wind
Buffalo County									
Fountain City	27	1855CST			0	0	6K	0.80K	Thunderstorm Wind
Trempealeau County									
Trempealeau	27	1925CST			0	0	12K	3K	Thunderstorm Wind (G61)
Trempealeau County									
Arcadia	27	1930CST			0	0	950K	13K	Thunderstorm Wind (G70)
Trempealeau County									
Ettrick	27	1939CST			0	0	15K	6K	Thunderstorm Wind (G76)



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Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>WISCONSIN, Southwest</u>									
La Crosse County La Crosse	27	1942CST			0	0	200K	75K	Thunderstorm Wind (G61)
La Crosse County 2 E La Crosse	27	1945CST			0	0			Thunderstorm Wind (G53)
Vernon County 2 N Stoddard	27	1945CST			0	0	200K	33K	Thunderstorm Wind (G73)
Jackson County North Bend	27	1949CST			0	0	85K	22K	Thunderstorm Wind
Jackson County Melrose	27	1953CST			0	0	32K	12K	Thunderstorm Wind (G83)
Monroe County 2 W Sparta	27	1954CST			0	0	14K	6K	Thunderstorm Wind (G52)
La Crosse County La Crosse	27	1956CST 2100CST			0	0			Urban/Sml Stream Fld
Vernon County Stoddard	27	1956CST			0	0	200K	20K	Thunderstorm Wind
La Crosse County 2 W St Joseph	27	1958CST			0	0	2K	0.50K	Thunderstorm Wind (G52)
Vernon County Viroqua	27	1958CST			0	0	35K	10K	Thunderstorm Wind (G52)
La Crosse County 2 S La Crosse	27	2001CST			0	0	40K	12K	Thunderstorm Wind (G52)
Monroe County 3 W Cataract	27	2009CST			0	0	167K	66K	Thunderstorm Wind (G88)
Monroe County Cashton	27	2010CST			0	0	175K	25K	Thunderstorm Wind
Crawford County Mt Sterling	27	2012CST			0	0	200K	20K	Thunderstorm Wind (G55)
Monroe County Fort Mc Coy	27	2026CST			0	0	88K	20K	Thunderstorm Wind (G52)
Richland County Yuba	27	2029CST			0	0	20K	0.80K	Thunderstorm Wind
Crawford County Eastman	27	2030CST			0	0	30K	10K	Thunderstorm Wind
Vernon County Newry	27	2030CST			0	0	120K	30K	Thunderstorm Wind
Juneau County Elroy	27	2040CST			0	0	23K	11K	Thunderstorm Wind (G65)
Juneau County Union Center	27	2040CST			0	0	2K	4K	Thunderstorm Wind
Monroe County Tomah	27	2040CST			0	0	18K	100K	Thunderstorm Wind (G70)
Monroe County Tomah	27	2041CST			0	0	100K	43K	Thunderstorm Wind (G70)
Monroe County 4 N Tomah	27	2042CST			0	0	190K	88K	Thunderstorm Wind (G78)



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WISCONSIN, Southwest

Juneau County									
Elroy	27	2045CST			0	0	14K	45K	Thunderstorm Wind (G65)
Juneau County									
Mauston	27	2045CST			0	0	9K	12K	Thunderstorm Wind
Monroe County									
4 E Warrens	27	2055CST			0	0	22K	12K	Thunderstorm Wind
Vernon County									
Hillsboro	27	2100CST			0	0	90K	33K	Thunderstorm Wind
Adams County									
Arkdale	27	2115CST			0	0	10K	2K	Thunderstorm Wind (G61)
Richland County									
Richland Center	27 28	2135CST 0005CST			0	0	15K		Flash Flood
Crawford County									
Mt Sterling	27 28	2145CST 0015CST			0	0	20K		Flash Flood
Grant County									
Lancaster	28	0100CST			0	0	200K	21K	Thunderstorm Wind

A line of intense thunderstorms swept in from Minnesota and caused widespread straight-line wind damage to many areas of central and western Wisconsin. This was one of the worst storms to hit the region in over 25 years. There were two main paths of concentrated damage where winds gusted between 90 and 120 mph.

The northern track of damage crossed the Mississippi River near Winona, MN and hit Arcadia, Ettrick, and northwest Monroe County hardest. Several buildings, chicken storage facilities, and grain bins in Arcadia were damaged or destroyed. There were trees down in many areas along with widespread property damage and prolonged power outages. Especially hit hard were areas of pine trees flattened between Melrose and Cataract where measured wind gusts of 101 mph were recorded before equipment failed. The damage path continued to the east-southeast crossing Interstate 90 near Tomah and knocking down wide swaths of trees.

The southern track of intense damage crossed the Mississippi River near the La Crosse-Vernon County line creating widespread damage to Goose Island Campground and Chipmunk Coulee just south of La Crosse. Many campers were damaged and trees blown over in the campground. Barns were destroyed as well with large sections of trees sheared or blown over along the northern edge of Vernon County. In Grant County, numerous large trees and power lines were blown down.

Ten counties in western Wisconsin were declared Federal Disaster areas, including Buffalo, Clark, Crawford, Grant, Jackson, La Crosse, Monroe, Richland, Trempealeau, and Vernon. Damage estimates in Trempealeau County alone topped \$4 Million with damages exceeding \$1 Million in La Crosse, Vernon, and Jackson counties.

Crawford County									
Countywide	28	0130CST 1030CST			0	0	25K		Flood
Richland County									
Countywide	28	0130CST 1030CST			0	0	25K		Flood

Many smaller and medium size rivers were bankful or flooding after torrential rains fell for much of the evening. Flooding mainly impacted low agricultural land although some county roads were closed.



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		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	